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China, Peoples Republic of

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Conditions for Imported U.S. Bovine Semen/Embryos in China

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Report Highlights:

China banned imports of U.S. beef and products in December 2003. Following intensive negotiations by USDA and a visit to the United States by a Chinese technical team, China agreed to re-open the market during 2005. In January 2006, China published the export conditions and a list of the approved U.S. bovine semen/embryo facilities. This report provides detailed requirements.

Includes PSD Changes: No
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Summary

China banned imports of U.S. beef and products in December 2003. Following intensive negotiations by USDA and a visit to the United States by a Chinese technical team, China agreed to re-open the market during 2005. In January 2006 China published the export conditions and a list of the approved U.S. bovine semen/embryo facilities. A "Health Certificate for Exportation of Bovine Semen/Embryos from United States of America to the People's Republic of China" will be issued to U.S. exports whose commodities meet the following requirements.

Health data for exportation of bovine semen to China

The following health data conditions can be found in APHIS web link:

http://www.aphis.usda.gov/vs/ncie/iregs/animals/ch_se_0106.pdf

A "Health Certificate for Exportation of Bovine Semen from United States of America to People's Republic of China" will be issued after a USDA-accredited veterinarian certifies the following:

1. The United States of America is officially recognized as free from foot-and-mouth disease, rinderpest, contagious bovine pleuropneumonia and lumpy skin disease.
 - 1.1 With respect to bovine spongiform encephalopathy (BSE):
 - a. Semen collection centers are located in the areas which are within the U.S. national surveillance program which operates in accordance with OIE guidelines as related to prevention, control and eradication of BSE.
 - b. There have been no suspected or confirmed cases of BSE in the semen collection centers.
 - c. Donor animals were born after implementation of the August 1997 feed ban and have not been fed any materials prohibited under the ban.
 - d. Donor animals can be imported into the United States from countries with equivalent or lower BSE risk levels and an equivalent feed ban. Imported donor animals were born after the feed ban was implemented in the country-of-origin. The birth farm of the imported donor animal has had no suspected or confirmed cases of BSE for the previous six (6) years.
 - e. Donor animals are not the progeny or birth cohorts of animals suspected or confirmed to be BSE positive.
2. Each AI center is located in a States where:
 - a. There has been no clinical evidence of bluetongue in any ruminant; and
 - b. For the past 12 months, no bluetongue virus has been isolated from any ruminant.

[Note: The acceptable States are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, West Virginia, Pennsylvania, Ohio, Michigan,

Indiana, Wisconsin, Minnesota, North Dakota, Alaska, Hawaii and Western Washington. The donor bulls and teasers must be negative to an AGID or ELISA test prior to entry into the AI centers. The donor bulls and teasers at the AI centers for export of semen must be born and reared in the above mentioned states. Donor bulls or teasers born in States other than those mentioned above, must be negative to bluetongue by AGID or ELISA tests prior to movement to one of the above mentioned States. They must be a resident of that state for six months and be negative for bluetongue by the AGID and ELISA tests, and by virus isolation prior to entry into the AI center.]

3. The AI center meets Certified Semen Services (CSS) standards (January 2002) and is under regular supervision and examination by a USDA accredited veterinarian. The donor bulls have resided in the AI centers for at least 6 months and have not been used for natural service since entering the centers.
4. The AI centers for export of semen are recognized as free of tuberculosis and brucellosis by USDA.
5. According to records, no animals in the AI centers for the export of semen have had any clinical signs of enzootic bovine leucosis during the 3 years prior to the first collection of semen for export to China by clinical examination. There was no swelling of lymph glands during the collection period.
6. All donor bulls and teasers in the AI centers for export of semen were negative to an AGID test or ELISA for bluetongue prior to entry into the center and negative on the center's semiannual tests thereafter. The donor bull must be negative to an ELISA at least 40 days after the last collection of semen for export. During the collection period, there was no clinical evidence of bluetongue disease in the AI center.
7. All animals in the AI center for export of semen are free of clinical signs of epizootic hemorrhagic disease (EHD). The donor bulls were negative to an AGID test for EHD at least 40 days after the last, collection of semen included in the shipment.
8. During the 12 months prior to the first collection of semen for export to China, there have been no clinical signs of IBR/IPV in the animals in the AI centers for export of semen.
 - 8.1 All bulls and teasers in the IBR/IPV free AI centers producing semen for China must be negative to the SN test at a 1:2 dilution or ELISA for IBR/IPV on a semiannual basis.
 - 8.2 If the donor bulls producing semen for export to China are part of mixed population (IBR seronegative and seropositive bulls) the following procedures must be followed:
 - 8.2.1 The seropositive animals were negative to IBR by virus isolation on serum at intervals of 6 months within the last 12 months prior to the first collection of the semen for export to China. Bulls that had only been tested in the last six months had one additional negative virus isolation test conducted within 30 days prior to the first collection of semen.

- 8.2.2 The seronegative animals were negative on the SN test at a 1:2 dilution or ELISA within 30 days prior to the first collection of the semen; and the same test was repeated with negative results within 21- 60 days after the last collection of the semen.
 - 8.2.3 In the case of bulls of beef breeds which have been vaccinated against IBR using an inactivated vaccine, the following procedures shall apply:
 - 8.2.3.1. During the 30 days prior to the first collection of the semen, the donor bulls producing semen for export to China shall be tested twice using SN tests or ELISA at least 21 days apart using undiluted serum as the initial dilution, and the results are considered negative if there is no increase in antibody titers.
[Note: "ELISA kit used to test for IBR must be approved by USDA]
 - 8.2.3.2. Three (3) straws from each ejaculate of the semen for export to China shall be tested for IBR by virus isolation with negative results.
[Note: "Each ejaculate" refers to the first ejaculate collected each week during the collection period.]
 - 8.2.4. Each semen ejaculate was tested for IBR by virus isolation with negative results.
9. During the 12 months prior to and during the collection of semen for export to China, there were no clinical signs of BVD/MD in the animals in the AI centers
 - 9.1 The donor bulls were tested for persistent BVD/MDV infection prior to entry into the AI center using virus isolation techniques on blood serum or semen with negative results.
 - 9.2 A sample of 0.1 ml of fresh semen or three straws of semen from each ejaculate was cultured by two passages (at least 6 days for each passage) in fetal bovine kidney cells for isolation of virus with negative results.
[Note: "Each ejaculate" refers to the first ejaculate collected each week during the collection period.]
10. The semen is from an AI center which is annually tested for *M. paratuberculosis* by fecal culture. An ELISA was conducted on donor bulls, with negative results, at least 40 days after the last collection of any of their semen in the shipment.
11. During the previous 12 months, all animals in the AI center were free from clinical evidence of leptospirosis; and within 30 days prior to the first collection of and at least 40 days following the last collection of semen, the donor bulls were tested for bovine leptospirosis —5 serovars: *L. canicola*, *L. grippityphosa*, *L. hardjo*, *L. icterohaemorrhagiae*, and *L. pomona* — with negative results (negative at a 1:100 dilution on the microtiter agglutination test) and the interval between the tests was not less than 60 days nor more than 120 days.
12. There has been no occurrence of vesicular stomatitis in the State in which the AI center is located during the 12 months prior to the first collection of semen for export to China nor within 30 days after the last collection of semen for export to China.

13. From the time of semen collection to the time of shipment of the semen, donor bulls were free from any sign of infectious or contagious diseases.
14. During the period of semen collection and for 30 days thereafter, the United States of America has been free from the diseases listed under paragraph 1 of this protocol and the AI centers have been free of clinical signs of infectious or contagious diseases.
15. The donor bulls:
 - a. Do not exhibit any genetic defects and there is no record of genetic defects in their predecessors or offspring;
 - b. Have not produced any progeny exhibiting recessive lethal genes or possible signs of carrying such genes.

Health data for exportation of bovine embryo to China

The following health data conditions can be found in APHIS web link:

http://www.aphis.usda.gov/vs/ncie/iregs/animals/ch_bov_emb_0106.pdf

A "Health Certificate for Exportation of Bovine Embryos from United States of America to People's Republic of China" will be issued after a USDA-accredited veterinarian certifies the following:

1. The United States of America is officially recognized as free from foot-and-mouth disease, rinderpest, contagious bovine pleuropneumonia and lumpy skin disease.

With respect to bovine spongiform encephalopathy (BSE):

- a. Embryo Collection Centers (ECC) are located in the areas which are within the U.S. national surveillance program which operates in accordance with OIE guidelines as related to prevention, control and eradication of BSE.
 - b. There have been no suspected or confirmed cases of BSE in the Embryo Collection Center.
 - c. Donor animals were born after implementation of the August 1997 feed ban and have not been fed any materials prohibited under the ban.
 - d. Donor animals can be imported into the United States from countries with equivalent or lower BSE risk levels and an equivalent feed ban. Imported donor animals were born after the feed ban was implemented in the country-of-origin. The birth farm of the imported donor animal have had no suspected or confirmed cases of BSE for the previous six (6) years.
 - e. Donor animals are not the progeny or birth cohorts of animals suspected or confirmed to be BSE positive.
2. Each Embryo Collection Center is located on the farm where:
 - a. There has been no clinical evidence of bluetongue in any ruminant; and

- b. For the past 12 months, no bluetongue virus has been isolated from any ruminant. The donor cow of the export embryos have been the resident of the Embryo Collection Center/farm for the past 12 months.
3. The donor cows are from Embryo Collection Centers/farms recognized by USDA as free of tuberculosis and brucellosis.
4. The donor cows are from farms where, in the past 2 years, there has been no clinical signs of bovine virus diarrhea, chlamydiosis, campylobacteriosis, trichomoniasis, paratuberculosis and IBR.
5. Within the 21-60 days after collection of embryos for export, the donor cows were subjected to tests for the following diseases with negative results:
 - 5.1 Tuberculosis: Intradermal caudal fold test using bovine PPD tuberculin with no reaction.
 - 5.2 Epizootic Hemorrhagic Disease/Bluetongue: AGID test
 - 5.3 Campylobacteriosis: Culture of vaginal mucus. (Only required for cows that have a history of natural breeding.)
 - 5.4 Trichomoniasis: Culture of vaginal mucus. (Only required for cows that have a history of natural breeding.)
 - 5.5 Leptospirosis: Microtiter-agglutination test for serovars *L. pomona*, *L. canicola*, *L. grippotyphosa*, *L. hardjo*, and *L. icterohaemorrhagiae* at 1:400 dilution with negative results.
6. On the day of embryo collection, blood samples were taken from the donor cows and the serum examined, with negative results, for presence of BVD virus by two passages (each at least 7 days) on tissue culture with cultures checked by immunofluorescence.
7. No clinical signs of infectious or contagious disease were observed in the donor cow from 30 days before to 30 days after collection of the embryos for export.
8. The semen used to inseminate the donor cows met the import requirements of the PRC.^{1,2}
9. The collection and processing of the embryos for export was done under the supervision of a USDA-accredited veterinarian and in accordance with the guidelines of the International Embryo Transfer Society (IETS).
10. Within 24 hours prior to collection of the embryos for export, the donor cows and all other cattle, sheep, and goats on the premises were found to be healthy and free of signs of infectious or contagious disease upon clinical examination by a USDA-accredited veterinarian.
11. All the embryos for export were transferred through five washes in phosphate buffered saline (PBS) containing bovine serum albumin (BSA); then through two washes in a solution containing trypsin at a concentration of 0.25%, pH 7.6-7.8, for a total trypsin exposure time of 60-90 seconds; and finally through five washes of PBS

containing serum instead of BSA. Each of the washes was a 100-fold dilution of the previous one and a fresh sterile pipette was used for each transfer.

12. Only embryos from the same donor were washed and treated together. After the last wash, each embryo was examined microscopically to ensure that its zona pellucida was intact and free from any adherent material.
13. The embryos for export were packaged and sealed in standard cryovessels. The cryovessels were permanently marked and coded under the supervision of a USDA-accredited veterinarian.
14. The embryos for export were frozen and kept under the supervision of a USDA-accredited veterinarian until prescribed tests and examinations were completed.

¹Semen from a bull not born in a State acceptable for bluetongue (please refer to the PRC's protocol for importation of bovine semen from the United States for the list of acceptable States) can have been used to produce the embryos for export if: a) the bull was evaluated for bluetongue by virus isolation (VI) test (on whole blood) and ELISA, with negative results, prior to movement to an AI center in a State acceptable for bluetongue; b) the bull was evaluated again by VI test and ELISA 45 days after moving to the AI center, with negative results; and c) all other bluetongue requirements in the PRC's semen protocol were met.

²Semen collected at an AI center where all bulls had not been tested for IBR and found seronegative can have been used to produce the embryos for export if: a) all seropositive bulls at the AI center had been tested (blood) for IBR virus infection by virus isolation, with negative results, and b) the donor bull was seronegative at 1:2 on the regular, semiannual test of all bulls and was seronegative at 1:2 when tested between 21 and 60 days after semen collection.

(End of report)